



ludson's Bay Railway Route

VIA

lissanabie and Valley of Moose River

BY W. A. CHARLTON, M.P.P.,

AND

CHARLES T. HARVEY, C.E.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY OF ONTARIO.





TORONTO:

WARWICK BRO'S & RUTTER, PRINTERS, &c., 68 AND 70 FRONT ST. WEST 1898.



HUDSON'S BAY RAILWAY ROUTE

VIA

MISSANABIE AND VALLEY OF MOOSE RIVER.

REPORT BY

W. A. CHARLTON, M.P.P.,

With Maps and Illustrations.

ALSO AN APPENDIX CONTAINING SUPPLEMENTARY REPORT BY CHAS. T. HARVEY, C.E.,

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO.



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VIA

MISSANABIE AND VALLEY OF MOOSE RIVER.

LYNEDOCH, ONT., December 27th, 1897.

Hon. A. S. Hardy,
Attorney General,
and Premier of Ontario.

DEAR SIE, -I have the honor of informing you that the request contained in your letter of September 9th last, that a personal examination should be made by myself of that portion of the Province of Ontario north of the Canadian Pacific Railway, proposed to be traversed by the Sault Ste. Marie and Hudson's Bay Railway Company, with a view of the Government being informed of its capabilities and characteristics, and the inducements which exist, or may be created, to secure commercial access and transit facilities through the contiguous wilderness to the shores of the great sea, which forms a part of the northern boundary of this Province, has since been complied with, in a manner and to an extent indicated in the accompanying report.

The points upon which you desired to obtain information were stated:—First, as to the character of the country.

Second, as to the soil.

Third, as to the variety and quantity of timber, minerals, etc.

Fourth, character and prospects of future trade between Hudson's Bay and main lines of railways passing through the Province.

Fifth, as to the extent of trade between points mentioned.

Sixth source of supply in the Hudson's Bay territory, the quantity, value, etc.

You stated that these are all important matters as to which information is desired from the company, and that the Government think it important that they should have some information obtained from their own standpoint as distinct from that of the Company's.

You also stated that owing to the lateness of the season, I might not be able to obtain as full information as might be desired, but could no doubt obtain general information upon all of them.

Acting upon your suggestion that information is desired from the Company. I addressed a letter, November 10th, to their Manager and Chief Engineer, C. T. Harvey, Esq., and have received his reply in a report of twenty-three pages, in which he deals with the fourth, fifth and sixth questions very fully, and refers more briefly to the others. I attach his report and four maps accompanying same, as an appendix to my report.

I have the honor to be, Sir,
Your most obedient servant,

W. A. CHARLTON.

REPORT.

The undersigned respectfully reports that, in accordance with the request of the "Governor-in-Council" I began preparations for making a personal examination of the Northern Section of the proposed route of the Sault Ste. Marie and Hudson's Bay Railway, on the 16th day of September last. My instructions were to accompany the surveying party, who were making the trip in connection with the proposed route. Several days were occupied in getting tents, camp utensils, etc., ready for the trip. I arrived at Missanabie Station, on the Canadian Pacific Railway, on the 21st day of September, and met C. T. Harvey, Esq.. Chief Engineer for the Company, and Mr. G. H. Worthington, formerly of Toronto, who desired to become informed from personal observation as to the feasibility of the route for railway purposes.

At Missanabie we were fortunate enough to obtain a large canoe, capable of conveying ten men with 1,500 pounds weight in camp equipage and supplies. On the same day we completed the organization of a crew of six men, of whom two, acting as guides, were natives of the Moose Factory Settlement on Hudson's Bay, and had been sailors in the Fur Company's vessels there; they had also been several times up and down all the branches of the Moose River, and had acted as guides for geologists and others who have explored in those regions. Some of our other men were hunters, who had been through the country east and west, so that from these men alone I was able to get intelligent information as to a large portion of the Moose River country.

Maps.—It should here be stated that the important matter of obtaining reliable and accurate maps of the region to be traversed was forced upon my attention by finding that the one furnished to me by the Provincial Crown Lands Department was too general and on too small a scale to be of any service. The Railway Company provided a map of their preliminary survey line, which, however, bore more to the east than the one now preferred by their engineer, and also a map of the section of Moose River for twenty miles south from the outer bar, made by the surveying party of 1891, with soundings, showing the depth of water inside the river, and outside until a deep sea channel was reached. This was of special value so far as it went, but left a large portion of the route unindicated. This want was found to be best supplied by adopting a map published by the Dominion to accompany Dr. Bell's Reports of 1875, 1877 and 1881, made to show the geological features of the Moose River Basin. This portrayed the west or Missanabie Branch of the Moose River to within a few miles of its mouth, and marked the rapids and falls along the same, which were found, as we passed,

very reliable: consequently it is adopted as the basis of arriving at the distances mentioned by connecting it with the railway survey of the northerly section of the river on the map accompanying this report. The line of the Canadian Pacific Railway has also been laid out upon it with approximate accuracy.

A start was made northward from Missanabie Station, on the C. P. R., on Wednesday morning, September 22nd. Our canoe was 29 feet long, 5 feet 6 inches wide, and 24 inches deep: when all paddles were going we would make from five to six miles an hour. We came to the first portage in a little over two hours, crossing from Dog Lake over the divide about nine hundred feet into Crooked Lake. These lakes are nearly on a level, Dog Lake emptying into the Lake Superior waters, and Crooked Lake into the Moose River waters. Passing out of Crooked Lake by a portage of about the same distance we reached Missanabie Lake, and by night had traversed the length of that lake to New Brunswick House, the Hudson's Bay Post, at the northerly end of the lake, about fifty miles from Missanabie Station. We were hospitably received by Mr. Spence, the agent of the Hudson's Bay Company at this point, and remained there over night. Next morning we continued our journey north, down the Missanabie River, camped at night in what is known as the Long Swamp; next night we camped at Split Rock, or St. Peter's Portage; next day, passed Sounding Falls, or St. Paul's Portage. Many of the rapids bear Indian names also, for instance, Waus-quaga-me, or Smooth Water Fall.

Our daily routine, when weather favored, was to call the men at 4.30, take breakfast at 5.30, and start on our journey at 6.30 or 7 at latest, paddle and portage all day with the exception of an hour at noon for lunch, and stop to camp between 5.30 and 6. It usually took us nearly two hours to get well camped and supper over.

On the afternoon of September 29th we reached the Long Portage Falls, the last one on the river. This point is considered to be 200 niles by river and lake from Missanabie, some say 250, but in a air line to the nearest point on the C. P. R. it is about 120 miles.

The fall of the river at this point is indicated on Professor Bell's map as 140 feet, the water rushing through a deep canyon where we could not follow its course. We made the portage of one and a quarter miles and camped at the foot of the Long Falls. We have met with interruptions more or less each day since leaving Lake Missanabie, having made thirteen canoe portages, and twenty other portages, where the canoe was floated down the rapids with part of our load. The river from Lake Missanabie to Long Portage Falls is a stream varying from about 200 feet to 500 feet in width, some places deep slack water for ten or fifteen miles, and at other points wild rocky rapids and shoal water. Some of the branches are rivers of considerable size, the Kabinakagami (Kab-a-na-koga-me) or Mattawishquaia (Mat-thou-wis-quaw-yah) is the largest; it is the outlet of a chain of lakes north of the C. P. R. and west from Lake Missanabie. portion of the Missanabie River, south of the Big Falls, has in my judgment very little commercial value for transit purposes; the river course is too tortuous, portages too numerous, rapids too dangerous. At the Long Portage Falls the character of the river radically changes, there being no more falls on its remaining course to the sea. Immediately below the falls are short stretches of rapids with boulders interspersed among them, but when these are passed only gravel riffs are found in rapid water, and our guides report that this feature existed without change to ticlewater. They also report having brought barges up to this point loaded with tifteen to twenty tons of supplies from Moose Factory.

RIVER TRANSIT.

My conclusions as to the transit features of the Moose or Missanabie River are that from Lake Missanabie to a short distance below Long Portage Falls it is of little value, but from Coal River, or perhaps several miles above, from some point below the Big Falls to James' Bay, the river is navigable for light draft boats from about the first of May until the middle of July, and possibly much later in seasons when the rainfall is considerable. At the time of our inspection, October 1st, the absence of rain for an unusually long period had reduced the volume of the river below its average, but one day's moderate rain on our return trip raised the water at our camp twelve inches within twenty-four hours. September 30th we held a consultation to determine whether, owing to the lateness in the season, we coulf safely continue on to Moose Factory with the expectation of getting back to Missanabie before the small lakes at height of land would be frozen over. Our guides thought it would be impossible for us to do so, as it would take a month of fair weather, and by making allowances for stormy days too bad for travelling we would be sure to reach the time when those lakes would be frozen over. We therefore decided to go the next day down stream ten or fifteen miles to Coal River, return to camp in the evening and start south the day following.

My main object in wishing, if possible, to go on to Moose Factory was that we might make an examination of the harbor at the mouth of Moose River, but as the Company have a plan or diagram prepared by their engineers in 1891, with soundings appended, some of which extend for miles seaward. I deemed it unnecessary to continue the journey for that purpose.

COAL RIVER.

On Friday, October 1st, we went down the river to the mouth of Coal River, a small stream coming in from the south-east. We arrived at the mouth at 10.45 a.m. Landing on the shore we left our canoe and walked up the deep valley (through which the small stream flows) about a quarter of a mile, in search of coal. We found some specimens of lignite and burned some on our fire when getting dinner. The specimens were black, some like colored blocks of wood, others stony, others like lumps of black earth. The smoke from our fire had a coal gas odor. At one point in the river bank I saw a seam cropping out, commencing about three feet above the water and holding the same appearance below the water; depth of vein not determined.

Went back to our camp at Big Falls in the afternoon and started south next morning, October 2nd.

I kept a diary from the time we left Missanabie, writing up fully all the events of each day, making notes of the country as to soil, timber, rock formation, etc., as we passed along; giving the names and length of each portage, noting down all features of the journey which I considered might be of use or interest for reference in the future.

I will quote here from my diary portions of one or two days' records:

Sunday, October 3, 1897.—Lovely morning, no frost last night, mild as summer; smoky atmosphere: late getting up this morning, did not take breakfast until 8.30; decided not to move camp to-day, will all take a good rest and start early to-morrow. Indians have hymn books printed in English and Ojibeway; they are singing some. I got Pierre Kawmenokence to assist me in the pronun-

ciation, and spent a long time reading the hymns in Ojibeway. We spent the day reading, talking, cooking and eating; a day of rest in the Moose wilderness. Most of these Indians are members of the Episcopal Church, living in the mission field where Rev. John Sanders works so faithfully.

Tuesday, October 5, 1897.—Rainy day; did not get up until seven o'clock; had breakfast at eight. Around camp all day, cooking, mending, etc. I consulted the Indians about the country on all branches of the Moose River. Jake Mickewash, who has travelled with several explorers and has been up and down all the rivers; James Wimstegoshe, who has traversed all the main rivers; both of these men have also been in the interior country between the river stretches, and have been around James Bay east, south and west; Simon Too-she-may and Pierre Kawmenokence, who have been active hunters and know the country well. They and the other Indians agree that the whole country on the James Bay slope, after leaving the height of land a short distance, is timbered, excepting a narrow belt of muskeg swamps some distance below the Long Portage Falls on the Missanabie and the corresponding Big Falls at the main drop of each of the other branches of the Moose, and that the swamp country changes to dry land some distance before reaching James Bay. The Moose River has three main branches. The largest one is the Missanabie, the west branch, into which several large rivers empty from the west. The centre branch is the Matthoggomah, and The Indians inform me that the country west the easterly branch the Abittibe. of the Missanabie is principally level country, through which a railway could be easily constructed, and that the Missanabie River and its tributaries furnish immense water power at various points all the way down to the Big Falls; that the middle and east branches of the Moose, although not so large, furnish abundant water power, and that the country along these branches is more broken than along the Missanabie and westerly therefrom, although all is well timbered with spruce and poplar of fine quality, some pine, tamarac, cedar, birch, balsam, etc. The soil on all branches, more particularly the west branch, is good soil for farming.

I noticed that a greater portion of the way down the river the soil is clay, and with favourable climate would be very productive.

The foregoing notes as to land and timber are taken from my diary for October 5. I will, while in this connection give some of my own ideas, and then refer to reports of E. B. Borron, Esq.

SOIL, TIMBER, MINERALS.

From Missanabie to New Brunswick House (fifty miles by water) the country is considerably broken, although the hills are not very high. The timber is small, and some portions of it have been destroyed by fire. I would suppose there is more rock than tillable land along that part of our journey.

At New Brunswick House the soil is clay. I am informed that they grow hay, oats and potatoes, but have not tried wheat. The pasture was very fine when we were last there, October 13th, and the cattle in the pasture field were in good condition for beef. I also noticed that at Old Brunswick Post (now abandoned), some forty miles further down the river, that the grasses were luxuriant. The country lying along the river below Lake Missanabie down to the point we reached is principally a level country, clay soil. There are occasionally rough rocky ridges in the vicinity of falls or rapids in the river, and at some of these points the rock formation is similar to that along the Michipocoten, and no doubt mineral bearing

The timber along the river is poplar, whitewood, spruce, small pine, tamarac, cedar, birch, balsam, and some ash and other varieties.

I measured a number of spruce trees and found the circumference four feet from the ground to be in many instances from five to eight feet. The poplar of two varieties or poplar and whitewood were nearly as large and very tall and straight. The level lands are more heavily timbered than the broken portions, although there is more small pine on the ridges. Some burnings have destroyed portions of the timber, but not to any very considerable extent so far as I could learn.

E. B. Borron's Report.

I wish to refer to E. B. Borron's report of 1885 (note 1) sessional papers No. 1, pages 62 and 63.

He expresses the opinion that a tract of dry and fertile land extends across the territory from east to west, not less than 400 miles long and 50 miles wide, comprising 20,000 square miles or 12,800,000 acres. Making every reasonable deduction for lakes, marshes, swamps, muskegs, and unarable land, a very large quantity is fit for settlement, the climate and soil favourable to a mixed system of husbandry; stock raising and dairy farming will be the most successful. On page 46, he expresses the opinion that there is a larger area of arable land along the Missanabie River than on any other, the Kenogami excepted (note 2). On the same page he mentions having seen elm trees and black ash at Old Brunswick, and on page 44, he states having seen spruce trees four to eight feet in circumference. It is only fair to say however, that he considers the belt of good sizeable trees of any kind as confined to the immediate banks of the rivers and streams.

CHINA CLAY AND FINE SAND.

On page 64, Mr. Borron gives an account of an inexhaustable supply of china clay and fine sand below Coal River on the Missanabie, "and adds should this clay prove, as I believe it will prove, suitable for the manufacture of china associated as it is with the finest of sand for glass making, and with beds of lignite coal and peat, this can hardly fail, I think, to be a point where manufactures of pottery and glass will ultimately be established."

For want of time I am not now able to give much information as to the character and prospect of future trade, between Hudson's Bay and the main lines of railway passing through the Province, the extent of trade between points mentioned, source of supply in the Hudson's Bay territory, the quantity, value, etc.

However as the report of the Company's Chief Engineer is attached as an appendix to this report, and as he has gone rather fully into these matters, I scarcely deem it necessary for me to deal in any sort of detail with these questions at present, but could if desired make an extended report later on. In referring to the chief engineer's report hereto attached, I would call attention in the first place to the first five pages dealing with the sea products. (I had intended to make use of some of the facts set forth, and of reports from other sources to show the extent and wealth of the north sea tisheries).

Note 1. Mr. Borron had examined the country previously in 1879 and in 1880.

Note 2. The Kenogami is a branch of the great Albany River westerly from the Missanabie, and described by Professor Bell as flowing through a fertile region.

The following pages up to the end of page 9 dealing with the character and prospects of future trade, opens up a field of almost boundless possibilities for Ontario as a commercial centre to the regions lying beyond this northern sea. From pages 10 to 16 he deals with the question of government aid, and comparison with other proposed routes.

From page 16 to 23 Provincial benefits possible. Landed interests and commercial interests.

MAPS.

I would call attention to the map following page 20, showing the relative size of Europe and the country lying west of Hudson's Bay, also the immense extent of country which must become commercially tributary to Canada's great sea, as stated on page 20. I also call attention to the three other maps which accompany these reports, one showing the proposed line of the Sault Ste Marie and Hudson's Bay railway from the most northerly point on the Canadian Pacific near Missanabic to the mouth of Coal River 122 miles, and from Coal River to Moose Factory 114 miles, in all only 236 miles in a direct line from the C.P.R. to James Bay.

Another map showing the Provinces of Ontario and Manitoba, indicating the shortest and most central railway route from these two provinces to the sea. Another map showing the whole "Harvey Route" reaching away into the north westerly portions of the Dominion.

LIEUTENANT GORDON.

1 will quote from Lieutenant Gordon's reports, that for 50 years Moose River has been open for sailing vessels in May, and once on the first of May. It closes in November once on the 9th of December. Steamers could navigate much longer than sailing vessels.

PROFESSOR BELL.

Professor Bell testified before Dominion Parliament Committee in 1883 that Hudson's Bay is open the year round, open water can be seen from the beach at all seasons. He was informed that on the eastern shore the sea washed against the rock coast all winter. Fishing can be prosecuted earlier and longer in Hudson's Bay than in the largest lakes of the St. Lawrence Basin.

Other explorers with whom I have talked confirm the reports so far as herein set forth.

I do not deem it necessary for me to extend this report at present, but can do so later on if desired. A full report of the mineral wealth of the Hudson's Bay country including the many islands would be a volume almost in itself,

Although the Hudson's Bay is open all the year, the entrance to the straits is blocked by ice coming down from the north, so that navigation between the Bay and the Atlantic Ocean is only practicable about four or five months in the year from August to December. But this would be the time of the year when a large portion of the Manitoba grain could be shipped by way of Moose Factory to Europe, as may be seen by consulting the map. This I consider an important matter. The Moose River country offers almost unparallelled opportunities for the manufacture of pulp. The Province of Quebec is probably the only other known country where this industry could be carried on extensively under similar advantages.

It seems to me a strange condition of things that a people so progressive as we are in Ontario, having for a portion of our northern boundary one of the greatest inland seas in the 'world, the sea and its surroundings possessing the greatest attractions for commercial enterprise, should be lacking of any means of communication between our commercial centres and this great field of wealth. I am not prepared to say to what extent the Government should assist in the construction of a railway, but I am sure it would be greatly to the advantage of the Dominion, and more particularly to this Province, and especially for the city of Toronto the natural commercial centre, if railway communication were etsablished at an early day. It would be the means of opening up a country hitherto shrouded in a very considerable degree of darkness and enable us to obtain full and reliable information as to its resources. It would inaugurate a direct trade between the merchants and manufacturers of Ontario and Hudson's Bay and extend to regions beyond. It would open up for settlement the fertile belt north of the height of land. It would develop and make available the mineral and timber resources of an extensive country. I believe that the immense territory lying between Temiscamingue and Abbittibe, westerly and northerly to the great Albany River is of sufficient importance to this Province in land, timber and mineral wealth, to warrant the construction of several lines of railway for the purpose of developing these resources.

In my judgment the Sault Ste. Marie and Hudson's Bay route is more practical than any other route yet proposed, for the purpose of establishing direct communication with Hudsons Bay at an early day and at a very limited cost, while at the same time it would pass through a larger area of arable land and be more nearly in the centre of this great but undeveloped region.

Respectfully submitted,

W. A. CHARLTON.

Lynedoch, Ont.,

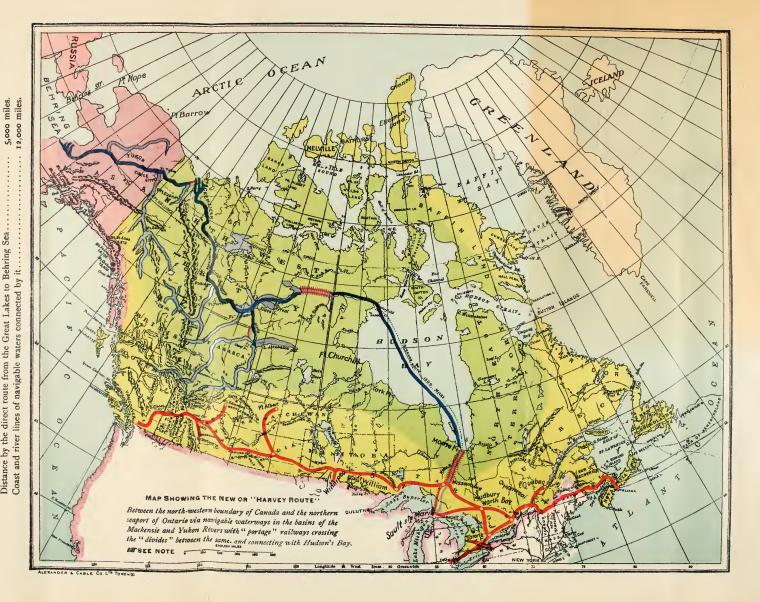
December 27th, 1897.

CANADA TRANSIT ROUTE REGIONS RENDERED ACCESSIBLE BY THE AND NORTHWESTERN COLOR INDICATED BY THE ONTARIO GREAT NORTHERN

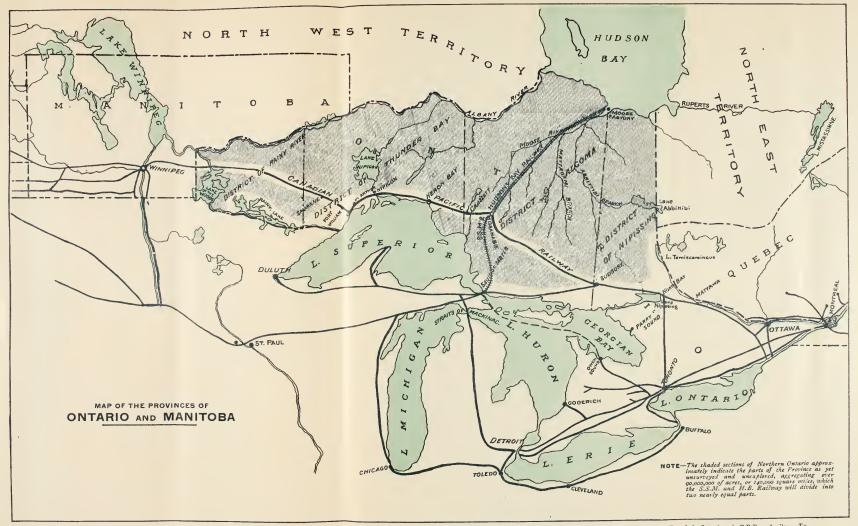
area which includes more than two thirds of the entire surface of Canada, as well as with an equal proportion Lakes of the St. Lawrence Basin to Behring and commercial centres of Ottawa and Toronto, Montreal and Winnipeg, Sault Ste. Marie a of the route shown a transit line from the Great Junction with comprised in the valley of the Yukon. continuation Railway to the completes St. Marys River, NOTE of Alaska,

important combined rail and waterway transit line on the continent of North and It is the most extensive

Distance by the direct route from the Great Lakes to Behring Sea... America.



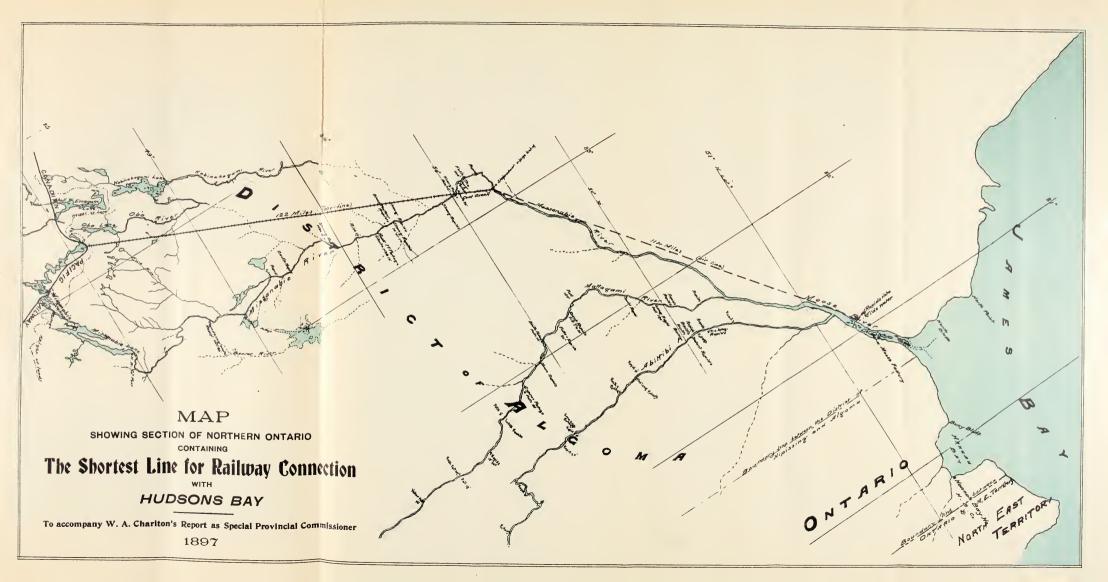


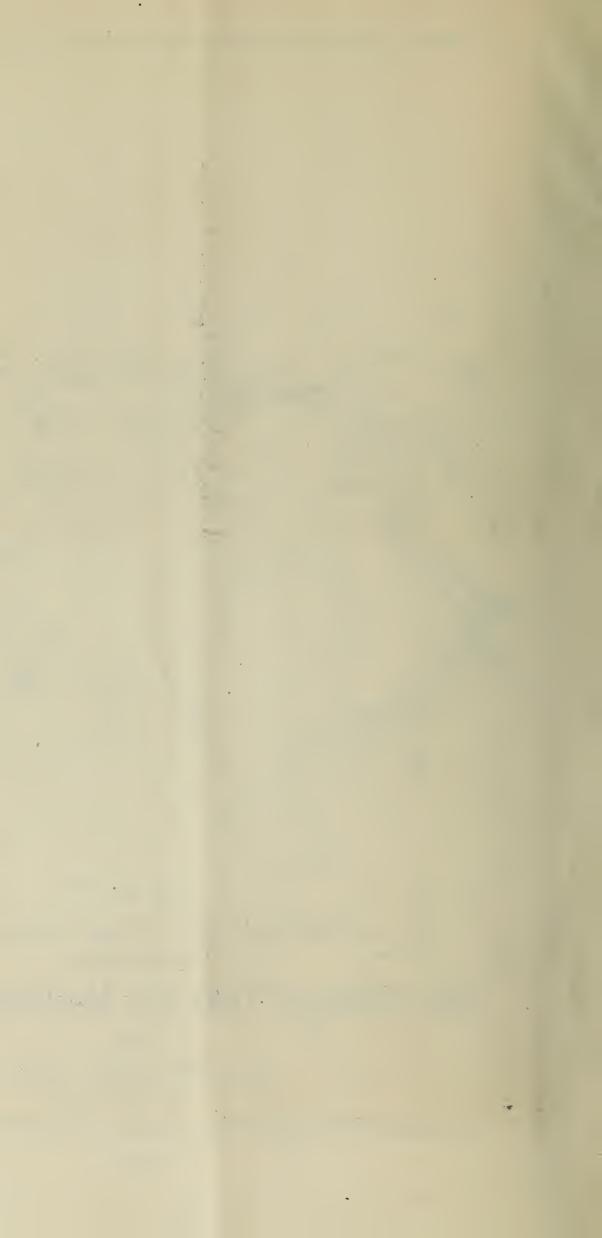


NOTE—DISTANCES: Missanahie Junction to tide water at Moose River—air line—225 miles, located route estimated 240 miles. From Junction to Sault Ste. Marie, located line estimated 160 miles. To Heron Bay, Lake Superior, via C.P.R., 128 miles. To Winnipeg, via C.P.R., 747 miles (this may be reduced about 90 miles, by "cut offs" between Savanne and Nipigon and elsewhere). To Montreal, via C.P.R., 675 miles. To Ottawa, 555 miles. To Tornoto, 537 miles. From Moose River to Liverpool, England, 3,050 miles less than from Liverpool to New York by usual steamer route. The Missanable route to Hudson's Bay from the C.P.R. is, at least, 150 miles less than from the C.P.R. at Sudbury or North Bay. Take FIC—No considerable export traffic from the fisheries of Hudson's Bay acan be permanently established over any route which does not reach the main line of waterway transit on the great lakes west of the Naraits of Mackings. Without this traffic no railway line in that direction can prove profitable.

The Missanable route alone fulfills these conditions requisite to financial success, and is, therefore, entitled to the first attention and aid from the Government as the most feasible route in all respects to the great Canadian sea.









C. P. R. STATION, MISSANABIE, ONT.



MISSANABIE, ONT.





CANOE USED FOR CONVEYING EXPEDITION.



DIVIDE BETWEEN ST. LAWRENCE AND HUDSON BASINS.





Going down first Rapids below Brunswick Post.



ALBANY RAPIDS ON MOOSE RIVER.





On the Moose River.



PORTAGE OBSTRUCTED BY TIMBER "WIND FALL."





CONJURING FALLS, MOOSE RIVER.



GUIDES POLING CANOE UP ALBANY RAPIDS, MOOSE RIVER.





Sounding Falls on Moose River.



ON THE MOOSE RIVER.





CAMP ON LONG PORTAGE.







NORTH END OF LONG PORTAGE.



Moose River, below Long Portage.



APPENDIX.

SUPPLEMENTARY REPORT

BY CHARLES T. HARVEY, ESQ., C.E.

34 VICTORIA STREET, TORONTO, Nov. 30th, 1897.

W. A Charlton, Esq., M.P.P., Special Commissioner, Etc., Lynedoch, Ont.

DEAR SIR,—Your communication of the 20th of November came duly to hand, and I beg to say in reply that I shall endeavor to respond to the request therein contained by presenting such facts as have come to my knowledge bearing upon the subject referred to.

To consider the questions in the order in which they appear in your communication, namely:

First.—" The character and prospects of tuture trade between Hudsons Bay and the main line of railways passing through the Province."

The traffic thus designated should be divided into four classes.

- 1. That created by conveying the products of the Hudson Bay region southward to, or through, Ontario.
- 2. That of bringing merchandise and supplies northward from, or through. Ontario for consumption in Hudson Bay industries.
- 3. That coming from beyond Hudson Bay and by utilizing its waterway passing to or through Ontario.
- 4. That passing to or through Ontario via the waterway of Hudsons Bay to regions beyond.

The first class mentioned must primarily result from the sea fisheries. The whale fisheries heretofore exclusively carried on by New England will be transferred to Ontario, and the whaling rendezvous at Marble Island will be abandoned because steamers wintering at Moose River can reach the same ground several weeks earlier.

The most experienced and successful whaling captain formerly in the trade who has spent seventeen years at Marble Island or in "Roe's Welcome" Straits, estimates that the profits of the trade if prosecuted from a railway terminal in Ontario would be \$250,000 a year. Other masters of whaling vessels, one of whom has his name appended to one of the principal straits in the Bay, corroborates this view. The Dominion Government, when the new route is available, can with great advantages intervene and regulate the annual catch, so that the whaling industry would be increased from year to year and these valuable mammals protected from extermination.

The "right" whales, which are worth from \$10,000 to \$20,000 each, pass from Hudson's Bay by the inland channels to the Gulf of Bothnia, and thence to the Arctic Ocean, and vice versa. One of my informants captured five of them in Hudson's Bay in a single season, and estimated that he saw 150 passing north, through the whaling grounds which they frequent but for a few weeks in each spring.

[11]

For further data relating to this industry reference can be had to the Report of the Dominion Government's expedition to Hudsons Bay under Lieut. Gordon in 1886, pages 60-1-2-3.

Another sea industry which will concentrate at the most southern railway terminal on James' Bay is salmon fishing. Salmon abound in all the waters flowing into the sea in that region. The rivers emptying into Ungava Bay are especially prolific in salmon. Their home also extends to all the great rivers emptying on the east coast of the northern sea.

Taking all of this salmon-breeding territory into account it is safe to say that it equals in extent and probably in productiveness that of British Columbia, where the exports of salmon have risen from zero in 1880 to an annual cash value at the fisheries of over four millions of dollars.

The estimate that one million of dollars would soon, after railway facilities reached these shores, be paid out annually at Ontario's seaport for salmon alone is undoubtedly a safe one.

That other fisheries would add to this income is equally certain. The Globe of the 13th instant contains a report of an interview with the distinguished scientist, Dr. Robert Bell, who has explored that region more than any other living man, and in which the following occurs:—

"Speaking of the fishes of those waters Dr. Bell said that about thirty species were already known to occur in Hudson Strait or Bay or in the waters falling into them. They include the cod, the common salmon, Hearne's salmon, sea "trout, speckled and grey trout, halibut, the large white fish, herring white-fish, "capeling (the food of the cod) a species of eel, a fish like the whiting, jackfish, "pickerel, pike-perch and others. Back's grayling, the most beautiful of fishes, "is common in some of the streams on the western side of the Bay. One or two "trials for cod in deep water in one part of Hudson Bay did not prove anything." Dr. Bell had seen fair-sized cod caught near Fort George in James' Bay."

There is another fishery resource which has never as yet been brought to public netice. There being no obstruction to the passage of fish from the Arctic Ocean to Great Slave Lake, the latter in the spring season is swarming with a distinct species of salmon known by the Indian name of Iconnu, the supply of which is practically inexhaustible, to say nothing of other food fishes which abound in those waters.

When the short railway portage to connect the same with Hudsons Bay via Chesterfield Inlet is completed, the cheapness of conveyance by the nearly all water route will inevitably bring these food products to Ontario's seaport for a market, and will render it one of the greatest, if not the most important centre for the distribution of fishing values on this continent.

The customers for such products are at present found mainly in the United States, and the streams of money which must be returned to Ontario for these exports will rapidly reach to enormous amounts, from the fact that there are about thirty millions of people living in a zone which can receive sea food from Ontario's sea coast when it has adequate railway facilities to supply the demand, cheaper and quicker than from any other source. The commerce thus established will be as expansive and reliable as that in breadstuffs.

The commercial laws which will govern this traffic will be noticed under another caption.

Next in importance are the mining resources of Hudsons Bay, of these Dr. Bell said in the interview just quoted that nearly all the economic minerals

existed along the shores of Hudsons Bay. The predominating mineral was iron ore, which was to be found in vast deposits in various localities contiguous to the sea.

The question of their commercial value, of course, depends chiefly upon the cost of their transit to a commercial market, and these conditions cannot be satisfactorily ascertained until a railway to these shores renders further investigation upon a practical basis possible.

FORESTRY PRODUCTS.

A third source of traffic exists in the products of the forests. North of the Canadian Pacific Railway the timber is of medium growth, of which my observation leads me to estimate that fifty per cent. is poplar of two leading varieties. twenty-five per cent. of spruce and twenty-five per cent. tamarack, white cedar and other varieties of little value.

The establishment of pulp mills at the water powers along the river, will, no doubt, follow the advent of railway communication through the valley and afford a means of utilizing the pulp woods so abundant in that region.

To what extent agricultural development will follow is not certain. In places where clearings have been made, as at the abandoned Hudsons Bay Company landing opposite Brunswick Lake, nutritious cattle grasses grow luxuriantly and give promise of a development of dairy products when cheap access to that region is obtainable.

The section of the route located south from the Canadian Pacific Railway to Sault Ste. Marie I found to be, so far as examined, a district with quite dissimilar characteristics, especially for one hundred miles north of the St. Mary's river, which I visited in company with the then president of the company who traversed its entire distance to the C. P. R.

These farming lands are as a rule equal to any in Ontario. They are mainly covered with a heavy growth of hard wood timber, comprising maple and beach to the extent of fully sixty per cent. Twenty per cent additional is in soft woods, as cedar, balsam and hemlock, while the remainder is spruce interspersed with Norway pine and white pine. The ground has a deep rich soil which can sustain a large farming population.

Where farms have been established under intelligent management the yield in cereals and in root crops is phenominal. Timothy, or herd grass, is found above the height of a full sized man.

The best farms are as yet located near the line of water communication, as at Goulais Bay, where is claimed to be the most profitable cranberry farm in Ontario.

A very intelligent farmer residing there informed me that after prospecting through the northern States from Michigan to Montana he had selected a farm near the Goulais River, and intended to make that his future home, having already cleared up enough to give him a satisfactory support.

The building of a railway from Sault Ste. Marie to the C. P. R. will open a larger area of the farming land than any other route of the same length in northern Ontario, and its connection with the section of railway to the great sea will create such a reliable market for farm produce to supply the fishing industries, that the settlement of the present wilderness will

be rapid and railway traffic correspondingly increased, provided the farmer can make a profit in clearing the land for cultivation by selling the forest growth as fast as removed.

The basin of Hudson's Bay can all be made tributary to Ontario when it can offer the cheapest railway connection with its navigable waters. This it can do by the Moose River valley route to the railway system of Canada at Missanabie, and with the great lake waterway at Sault Ste. Marie. The same result will follow in respect to the vast Mackenzie river basin if easy transit can be established between Chesterfield Inlet and Slave Lake. The most reliable information as to the nature of this undertaking is furnished by the well-known engineer, Mr. J. W. Tyrrell, who, while in the employ of the Dominion Government during several years of exploration and scientific examinations on the northern coasts of Hudsons Bay, passed over a portion of the "divide" between Hudsons Bay and Slave Lake, and is the only engineer known to have made any examination of that vicinity.

In a letter from him to myself, dated September 6th, 1897, the following sentences occur:

"In regard to Hudson's Bay and your proposed route via its waters to the famous mining districts of northern Canada permit me to say that I have spent three seasons in the region in question and have crossed the waters of the Bay in various directions five times.

"The northwest arm of Hudsons Bay, known as Chesterfield is a deep fiord, extending for about two hundred miles to the westward into the interior of the country. For a further distance of seventy miles Baker Lake still furnishes a channel for deep sea navigation, whilst flowing into this Lake from the westward there is a large stream called the Telzoo River, navigable for a long distance by river boats.

"From the head of Baker Lake westerly to the navigable waters of the "Great Slave Lake system the distance is only about one hundred and sixty miles, "and so far as I could see in passing through the district, no unusual difficulties "would be met with in the construction of a railroad.

"At one place where a large river joins the Telzoo from the westward great quantities of drift wood were found, much of it being of large dimensions, proving the existence of a forest district upon this branch not far distant. The "timber of this forest must be of the greatest value in constructing a railway "across the 'divide.'"

This warrants the conclusion that an easy and short railway connection with those waters can be readily built at a moderate cost. The significance of this to the commercial and industrial interests of Ontario is too vast to be easily grasped.

It means that the grain, cattle, lumber and minerals east of the Rocky Mountains and north of latitude 50, as far east as the 80th meridian of longitude will seek an eastern market through Hudsons Bay, of which Ontario can possess the commercial centre.

It also renders it certain that merchandise can be transported from Ontario to the greater part of that region cheaper than from the Pacific coast, which will largely rule out competition from the United States, notwithstanding the great preparations being made by the latter to secure the same.

To elaborate the details of this result would require too much space, but the following extracts from a communication published in the Toronto "Globe" may

be quoted.

"To the Editor of the Globe:

"SIR,—I regard the communications in your last Saturday's issue discussing the means of access to the Klondike gold fields as containing statements of the utmost moment to the business interests of Toronto, and only wish that they were made more conspicuous and placed in juxtaposition for easy reference by your readers and were all accompanied by a map indicating their geographical

importance clearly and fully.

"The first is a statement on page 5 of the relative distance from Toronto to the Klondike gold regions by two routes, one by way of the C. P. R. to Edmonton, and thence to the Athabasca River and via. that stream and its outflow to the mouth of the Mackenzie River; the other between the same last-mentioned point and our city via the new proposed route to the Ontario sea coast, and thence by steamer in Hudsons Bay to the northwestern extremity of tidewater in Chesterfield Inlet and with a portage railway to deep water in Great Slave Lake whence steamers can proceed to the Mackenzie River and follow it to the sea without any break in an ample channel all the way.

"The comparison shows that the Athabasca River route is 600 miles longer from Toronto, and has 2,492 miles of railway transit, 551 miles of river transit, and 250 miles of deep water lake transit with six trans-shipments, against 970 miles of railway transit and 1,700 miles of deep sea transit with no river navi-

gation, and but three trans-shipments by the Ontario sea coast route.

"The conclusion is evidently well founded that passengers can be transported by the Ontario line in one-third less time and cost, and freight at two-thirds less

rate between the same points.

This is a revelation of Toronto's vantage ground, rendering a vast and rich territory commercially tributory by the new route, which may be considered one of the most important announcements yet made in its history.

Toronto, August 10.

J. W. LANGMUIR.

The area of the territory north of latitude 50 to be thus made tributary to Ontario as will be seen by the accompanying diagram is larger than all of Europe excluding Russia, and exceeds that of the continent of Australia.

The report of the Senate Commission published by the Dominion Government in 1888, contains abundant evidence that the natural industrial resources of northwest Canada are varied and immense, and only wait the advent of a resident population to give them immediate commercial importance. That official statement of these conditions is the best possible answer to paragraphs three and four of the points upon which information is desired.

Passing on to the next point on which you desire information, namely:

As to the extent to which Government aid is solicited for the aforesaid Company.—I can only refer to a statement prepared by the directors the present year, in which it is proposed that for the portion of railway in Ontario the Province grant ten sections of land and \$3,000 in money per mile. The Dominion has \$7,500 in money and twenty sections of land per mile already authorized as a bonus to the first railway reaching Hudson's Bay. The portage railway, further north and west will, of course, be solely aided by the Dominion.

As to the next statement you suggest, namely:-

A comparison with other proposed routes to Hudson's Bay as to distance; estimated cost, and competitive traffic, mention will be briefly made of the following facts:

The most eastern route proposed is an extension of the Lake St. John Railway from Quebec. The distance in an air line is stated by Mr. Sullivan, Engineer and Inspector of Surveys of that Province, to be 372 miles. Allowing fifteen per cent. for curves, about 430 miles should be estimated as the actual distance. This added to the existing 191 miles would make the distance to a commercial outlet 621 miles.

The total official returns show the cost of the portion already built to have been over forty-eight thousand dollars per mile, including fifty-one miles of branch lines. For the main line up to 1895, the Dominion Government had paid a bonus of \$1,002,000, or about \$5,200 per mile; the Province of Quebec, \$2,090,500, or over \$10,900 per mile, and the City of Quebec, \$462,000, or nearly \$2,500 per mile, not counting branches. The aggregate of Government aid is therefore about \$18,600 per mile of main line. At this rate it would cost to extend the same to Hudsons Bay \$20,640,000, of which \$7,998,000 would be the proportion of Government subsidies.

The geographical direction of this route will evidently render exportation of fishery products over it unprofitable under any circumstances. Hence its usefulness as an avenue to Hudsons Bay would be of little account, and its investment qualities would remain as poor as ever. (See note).

The next western route, heretofore promoted, is that from North Bay, on the C. P. R., to Moose Factory. for which a corporation was organized, and its prospectus published in 1884, a copy of which, with map attached, is now before me.

The line as shown on said map, is 375 miles long, with the west end of Lake Abbitibi as a central point. To this should be added fifteen per cent. for curves, which would make the actual construction, distance 430 miles, and from Toronto to Moose Factory, by this route, 654 miles.

Recently another charter has been obtained for a route from Sudbury to Lake Abbitibi, and thence to Moose Factory, and a consolidation of the ownership of both interests is understood to have taken place.

The features of each are essentially the same, except that the more westerly route is reported as traversing some valuable pineries near the southern end, but this is probably more than counterbalanced by having its line projected over a very rough country where no main watercourse can be followed (see note) with many interfering lakes to cause a serious lengthening of its line, which will probably not be less than the other, and may be considerably more

For purposes of comparison both of these routes may be considered as essentially alike, except that the Sudbury route will with present connection add seventy-nine miles to the distance via the other to Toronto.

There remains but one more projected Hudsons Bay route to be considered, namely, that from Winnipeg northward to Fort Churchill (that to York Factory near the mouth of the Nelson having been abandoned because of the impossibility of obtaining a harbor there).

This route will be about 800 miles long when constructed. For the first 300 miles it will pass between competing lake waterways, which will be cheaper

⁽Note).—The earnings of this line, as now operated, were reported to Government. (See Report of 1895) as \$164,312.97. Operating expenses \$157,737.22, leaving a net of \$6,575,75, or \$27.17 per mile for repairs, etc., etc.

⁽Note).—Vide Report of Provincial Surveyor engaged in locating the line between the districts of Algoma and Nipissing for 132 miles north of the C. P. R. during 1896.

freight carriers. For the remainder it must traverse a very rough country with large rivers to cross, and finally reach a port over 600 miles north of Moose Factory, with all the adverse climatic conditions which that implies. To aid this the Dominion Government proposed to confer a land grant of twenty sections to the mile, and later on a cash bonus of about \$10,000 per mile, but the project is still in abeyance, with stupendous difficulties confronting it.

To all of these proposed routes one most serious objection appertains. They are not on lines to afford export facilities for the main fishery industry of the Hudsons Bay region, hence they cannot prove paying investments, or present strong claims for government aid.

On the other hand, the Moose River route from Hudsons Bay is the shortest and easiest one to Sault Ste. Marie, the greatest and cheapest transportation centre on this Continent, if not in the world. Freight has ruled there the past season at twenty cents per ton "up" for a 1,000 miles carriage, and from sixty to eighty cents "down."

The export trade of Hudsons Bay must from fixed commercial laws seek its main outlet there. It is easy to demonstrate that a ton of fish bound for the lake ports of the United States would be worth less at Toronto than it would be at Hudsons Bay with an option to ship via a direct line to the "Soo," In the matter of shipping freight and passengers from Toronto to Hudsons Bay and beyond, the C. P. R. could afford to join in offering quicker time and lower rates to Moose Factory via Missanabie than could be afforded by a direct route if built between the two places.

A remarkable feature of the Missanabie line is that but 122 miles of air line, or adding fifteen per cent. for curves, 142 miles of actual line only, is required, to extend the railway system of Canada to navigable waters leading into Hudsons Bay. About 100 additional miles over C. P. R. to Heron Bay will complete a portage railway between a waterway of the great sea and of the great lakes, or 250 miles in all, with 40 per cent. of the same already built.

From These Facts the Following Comparison is Compiled.

Distances from navigable waters connecting with Hudsons Bay to existing Railways.

From Fort Churchill to C.	P. R. at Winnipeg, Manitoba	750 Miles.
From Rupert River to L.	St. I., or Quebec R. R., at L. St.	
John Quebec		387 "
	R. and G. T. at North Bay, Ontario	385 "
From " " " "	" Sudbury "	380 "
From " " " "	" Missanabie "	122

(From tide water to Missanabie 236 miles.)

In the foregoing table no allowance is made for curves in the several rail-way lines to avoid lakes, rivers, deep cuttings and embankments. These are estimated at fifteen per cent. on all the routes except the Missanabie, which following one river valley where no lakes or mountain ranges are to be encountered will not exceed five per cent. probably.

Under this rule the distance of actual new railway to be built on the several lines will be as follows:—

Fort Churchill to Winnipeg	862	Miles.
Rupert River to Lake St. John	445	• •
Moose River to North Bay	44:3	"
Moose River to Sudbury	437	"
Moose River to Missanabie	128	"
(Tide water to Missanabie		

Distance from Great Lakes or St. Lawrence River to Narigable Waters
Connecting with Hudson's Bay.

Via Lake St. John Ry. to Quebec, 621 miles.

Via North Bay to Algoma, near Georgian Bay, 604 miles; Toronto, 659 miles.

Via Sudbury to Algoma, 525 miles: Toronto, 738 miles.

Via Missanabie to Heron Bay, 242 miles: Sault Ste. Marie, 302 miles.

Via Winnipeg to Fort William, 1,226 miles.

These tables demonstrate absolutely the superiority of the Missanabie line to Hudson's Bay.

Respecting the query as to subsidies heretofore given by government, whether Dominion, or Provincial, or municipal in aid of proposed railway lines which may be utilized in reaching Hudson's Bay the records show:—

That to the Lake St. John railway \$18,000 per mile in money has been paid as heretofore stated. To the North Bay route \$3,000 per mile has been authorized as provincial aid, but not earned.

To the railway between North Bay and Gravenhurst \$12,000 per mile in money was paid by the Dominion government.

For the Port Arthur and Rainy Lake railway \$3,000 per mile from Ontario and \$6,400 per mile in money from the Dominion were voted the present year.

The Canadian Pacific railway owes its existence to liberal governmental aid, which the official returns show to have been \$55,964,754.01 in money. Also 26,772,800 acres of land along the route through the "grain belt" west of Ontario, the products of which are now being exported in enormous quantities.

If these amounts are divided by the length of the main line of railway from Montreal to Vancouver, 2,906 miles, the average appears at over \$19,000 in money, and 9,200 acres of land per mile.

The present year a Dominion grant of \$11,000 per mile in money and a grant by the Province of British Columbia of about 20,000 acres of land per mile has been bestowed upon the "Crow's Nest Pass" extension of this railway system.

These precedents are submitted as warranting the expectation of aid upon the scale mentioned, to this short line to Hudson's Bay.

Most Prominent Provincial Benefits Possible.

There are two most prominent interests of the Province of Ontario which can be promoted by the building of the proposed short railway connection with Hudson's Bay to an immense extent not otherwise possible.

One of these is its Landed Interests and the other its Commercial Interests.

Provincial Land Interests.

It is well known that in 1876 the province was awarded a clear title to the section of its present territory lying north of the "height of land" previously claimed by the Dominion and covering an area of about ninety millions of acres of land, and that during the score of years since the award no material increase of value or of population has occurred in the annexed district.

If a proposition can be substantiated that less than one-tenth of that area, including a section of similar wilderness adjoining on the southern slope of the height of land "can be so managed as to increase the marketable value of that one-tenth of the Provincial Crown Lands ten millions of dollars within ten years would the same be approved by public sentiment in the province irrespective of political or local affiliations?

A test is suggested as practicable on the following lines of procedure:—

Let the Province offer as a premium to the Corporation which will first build a railway through the annexed district from the Canadian Pacific railway to Hudson's Bay on the shortest and most practicable line every alternate township in the 1st and 2nd tiers or equivalent quantity of land on each side of such line, reserving specified pine timber and mineral rights therein, with the privilege of subsequently continuing such line mainly through like wilderness lands for a similar land allotment pro rata per mile in the unsurveyed portion of the districts of Algoma or Nipissing to the great lake waterway. Fix the price of Crown Lands in the townships adjoining the railway line at \$2.00 per acre, and of those in the townships in the next two tiers at \$1.50 and \$1.00 per acre respectively, withdrawing free grant privileges within the three tiers of townships next to the railway while continuing them on those beyond that limit.

When each township is made subject to sale, have the choice of location exercised by the highest bidder. After the railway has been built for five years the company to be required to sell five per cent. of its lands not necessary for railway purposes each year, when such per centage is to become subject to taxation.

Applying this system to the route covered by the charter of the Missanabie Route railway, and estimating the total distance at 400 miles, namely, 250 miles north of the C. P. R. and 150 miles south of the same, the reserved Crown Lands in the first, or nearest, tier of townships would be 663 townships, or 1,536,000 acres, averaging within three miles of a railway line valued at \$2.00 per acre, amounting to \$3,072,000, and in the next tier 66\frac{2}{3} townships, or 1,536,-000 acres, averaging within nine miles of the railway, at \$1.50 per acre, amounting to \$2.304,000, and in the third tier 1331 townships, or 3,072,000 acres, averaging within fifteen miles of the railway, at \$1.00, amounting to \$3.072,000, making a total of \$8,448,000 for the same lands that are now offered at fifty cents per acre and also as free grants to actual settlers, without attracting the latter, and much less purchasers to any considerable extent. But to the above total should be added the sale of timber and mining rights at the estimated average of \$200,000 a year for ten years, or \$2,000,000, which, added to the land values, presents a total of \$10,448,000 to be derived from 9,216,000 acres of land, including one-third, or 3.072,000 acres, granted as a premium for constructing and operating the railway.

It is easy to prove that this is an under estimate of the advantages to accrue to the provincial landed interests as a whole from the advent of the proposed railway.

The benefits are only estimated for a width of three townships on each side, while the same will actually extend for an average of over fifty miles without including the sea coast and river vicinage which it will render accessible.

The Provincial government will find the railway capital a most energetic agency in promoting industrial interests of all kinds which can be made tributary to the railway traffic, and thus hasten the development of the provincial resources now hidden in a vast wilderness. The provision requiring a fixed annual diminution of its landed holdings will terminate the same within an average of fifteen years and dissipate all fears of a "land monopoly"

Ontario's Commercial Interests.

If the proposition should be submitted to the business men of Ontario that upon an arrangement with the Provincial government for a money or credit advance of not exceeding from five to ten per cent. of the profits which will result to the province from the enhancement of Crown Land values as shewn in the preceding proposition, as a premium for a special expediting and extension of the railway facilities and connections rendered possible by extraordinary efforts at construction progress on the shortest route from the C. P. R. to Hud-, son's Bay, and across the "divide" from that sea to navigable waters in the Mackenzie basin, a territory larger than the whole of Europe outside of Russia containing the richest and most extensive mining regions in the world, as well as millions of square miles of arable lands where wheat can be most profitably produced, can be made commercially tributary to Ontario for all time, or until water courses cease to be the cheapest means of transportation, and consequently adding millions annually to the commerce of its chief cities, would there be hesitation and caviling about memorializing the government to arrange for such advances on liberal terms? This is no idle question. Beyond all doubt such a possibility waits upon Ontario's decision at the close of 1897.

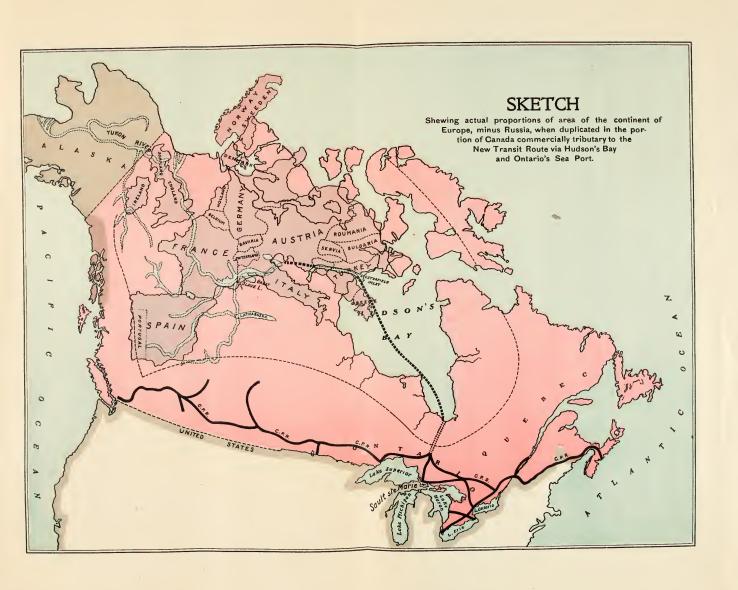
The accompanying map shows how Europe can be laid over Canada west of Hudson's Bay and within the watersheds of the Bay and the two great rivers of the north west with a wide margin of surplus space.

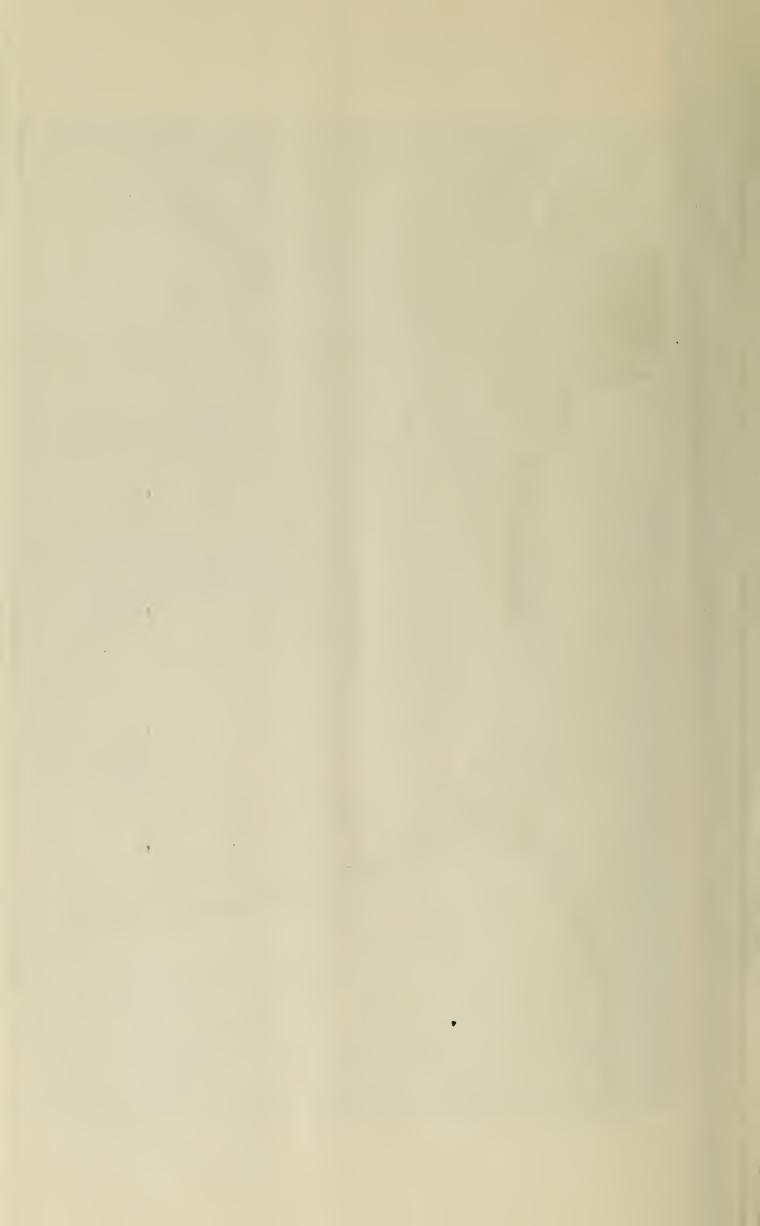
The dotted lines show that portion of the Dominion which must become commercially tributary to the great sea of Canada when suitable railway connections are made and that the same is more that twice the area of Europe as thus proportioned.

It is not necessary to secure attention to this region for me to set forth facts relating to its prospective resources, because as you are well aware, the attention of the civilized world is now fastened upon it with an intensity never equalled in the history of the human race. Expeditions are preparing to start for its "El Dorado's" in the coming spring from all parts of the globe estimated to number from one quarter to one third million of men.

Transit lines are advertising to convey them to the valleys of the Mackenzie and the Yukon via Edmonton in the North West Territories and by the various passes through the mountains on the Pacific coast, while not a solitary passenger is booked to go by the Ontario route which nature has provided, and which is primarily better than any other to the main portions of the mining territory in North Western Canada.

A few months of energetic pioneering route work will suffice to change these conditions and open up connections via Ontario which would make Toronto the headquarters for the out-fitting of parties bound to the Klondike and intermediate





mining locations, and lead miners seeking to return to the older countries with their "dust" and "nuggets" to come this way, to be followed by freighting facilities which will concentrate commerce at Ontario's new sea port, and its governmental, financial, and manufacturing Capitol to an extent not now dreamed of by its most sanguine business men.

The methods to obtain this end are very simple and need not involve a dollar of net Provincial indebtedness.

With the policy of the land developing system above mentioned adopted, let the Government appropriate from its share of the increased marketable value of the railway route lands sufficient to offer the railway company a premium of \$1,000 per mile for the route from the C.P.R. to the navigable waters of the Moose River if it will open a road between these two points so that a regular mail route can be established by horse conveyance thereon not later than during the month of May next by which mails can be taken from the cars to the steamboat within twenty-four hours time. Add to that the offer of a premium of a like amount for the extension of the road to tide water at the mouth of the Moose River provided the Company will arrange with the Hudson Bay & Yukon Railway and Navigation Company (chartered by the Dominion at its last session) to open a mail road across the divide between the navigable waters of Hudsons Bay and Great Slave Lake via Chesterfield Inlet during the month of July next by which mail can be transported between the same within sixty hours, and weekly trips made by mail steamers between the "divide" and Fort Simpson on the Mackenzie River and also between the "divide" and Moose River in Ontario. This done and 1898 will see Ontario's commercial supremacy established over northwestern Canada.

It cannot be doubted that from Fort Simpson as a radial point a mail route will be established by the Dominion Government on the natural route up the Liard River, and across the divide of eighty miles to Teslin Lake at the head waters of the Ynkon and where a junction can be made with all the Pacific coast routes to the Klondike, also another with the head waters of the Pelly River where the "divide" is less than ten miles.

And also the most important one down the Mackenzie River to the Peel River, and thence across the fifty mile "divide" to the Porcupine branch of the Yukon and thence to the Klondike by a route entirely within Canadian territory.

With the mails of these routes concentrated at Fort Simpson they can be taken thence to Toronto in nine days in 1898 with the time gradually reduced to nearly half that time in the next year or two.

Space will not permit of making comparisons with other routes but the superiority of this will appear in a still stronger light for a winter route as steamers can run on Hudsons Bay all winter, and good roads and railways will be progressively opened for winter use thence to Fort Simpson as travel increases in the near future.

If the Ontario government will offer an additional premium for opening the railway from the C. P. R. to tide water in 1899 of \$2,000 per mile payable out of sales of Crown Lands along the route I have no doubt that that result will be assured and if the credit of the Company can be aided as to pledging its lands assured and if the credit of the C. P. R. that transit extension can be materially hastened.

The problem of terminal railway facilities at the mouth of the Moose River will require to be dealt with soon after the line is opened to that point.

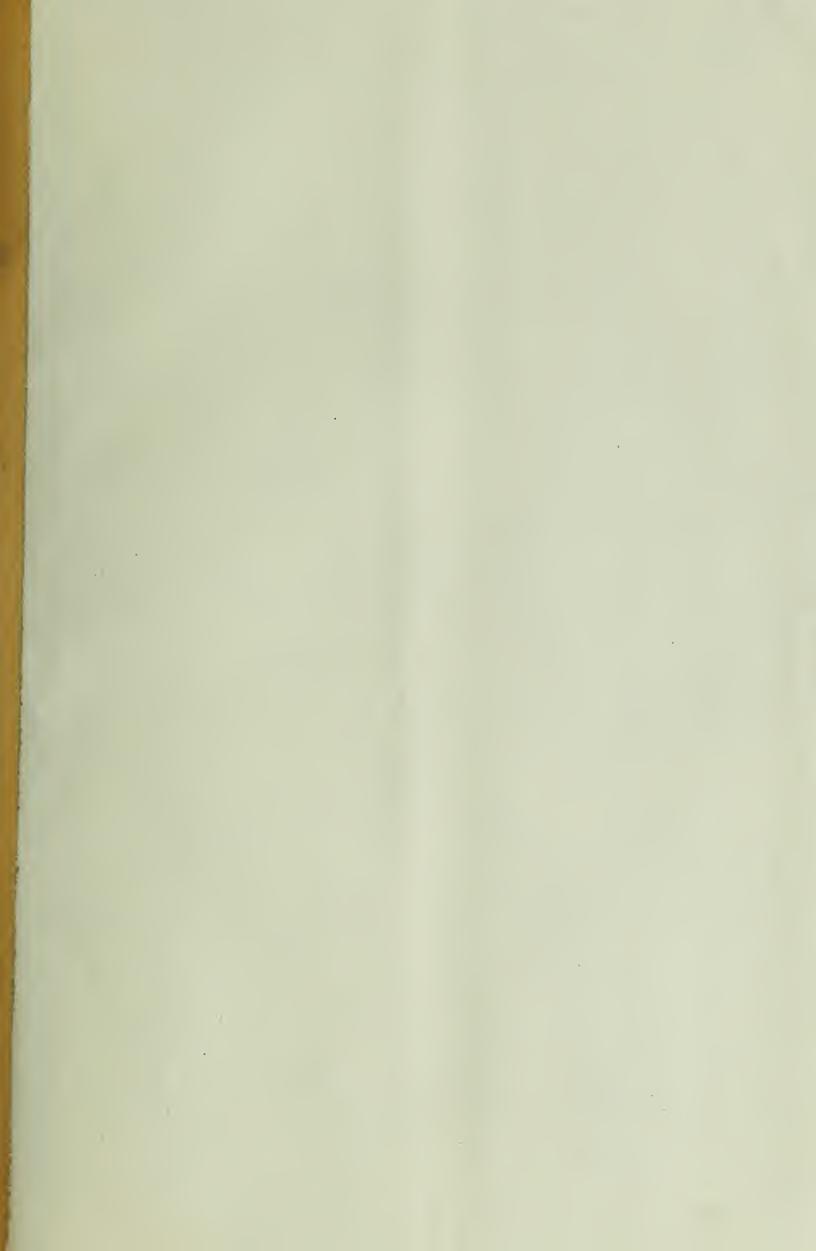
At present there is about five feet of water over the bar at low tide, with a tidal rise of from eight to ten feet. A preliminary survey made by this Company before my connection with it, shows that the railway must be financed with a large reserve for harbor and dock building expenditures, before large ocean steamers can gain suitable access to the railway terminus, but by careful management the coast wise steamer service can be commenced without delay to connect with the Missanabie route whether operated by steamers on the lower river section, or by through trains.

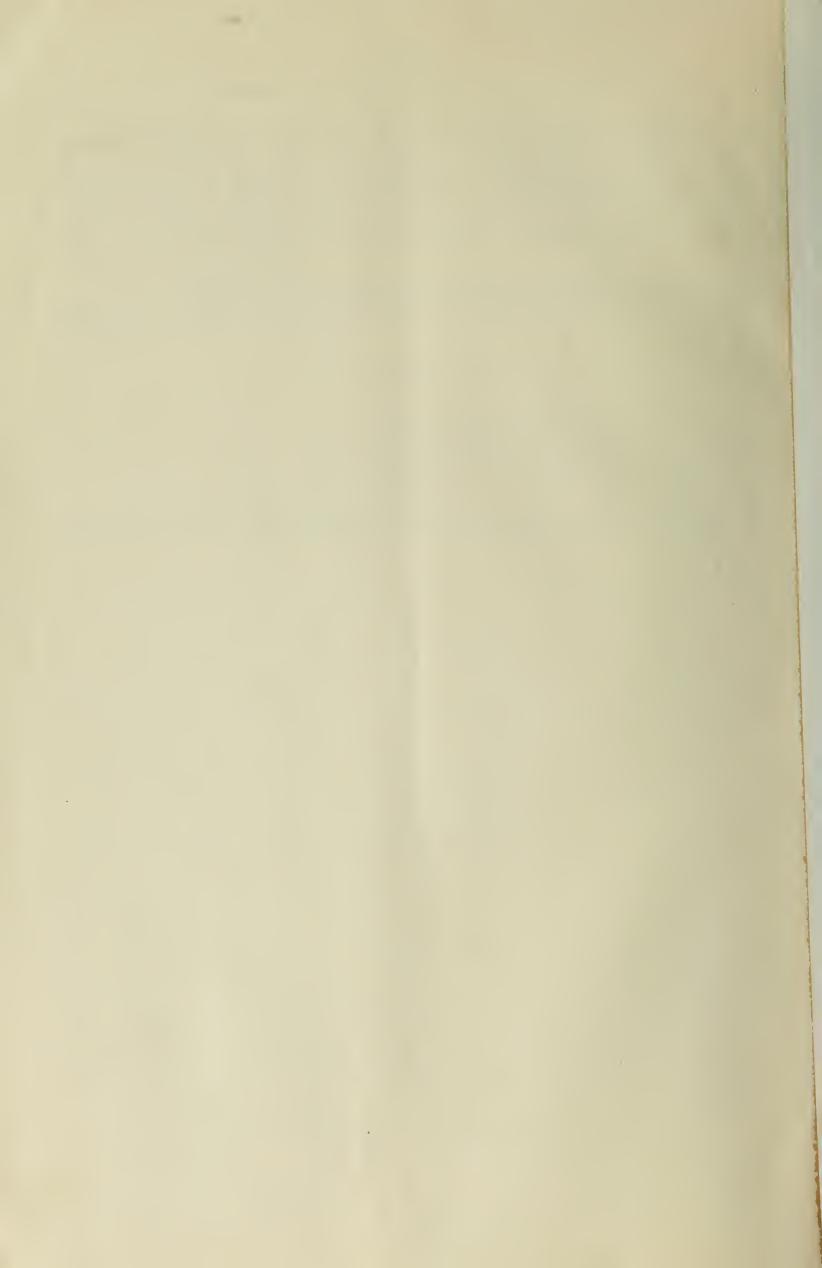
The overshadowing importance of the subject embraced in this communication will I trust be deemed as warranting its length, which is much more than I anticipated at its commencement.

Very respectfully yours,

CHAS. T. HARVEY, Chief Engineer, Sault Ste.Marie & Hudson's Bay Railway Co., and Hudson's Bay and Yukon Railways & Navigation Co

P. S.—I enclose two maps which may be of service for reference, and with permission for their use in connection with your Report should you so desire.







Hudson's Bay Railway Route.

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